Python

**Easy Python MCQs:**

1. **What is the output of print(3 \* 'a') in Python?**
   * A) a
   * B) aaa
   * C) Error
   * D) 3a
   * **Answer: B) aaa**
2. **Which of the following is a mutable data type in Python?**
   * A) String
   * B) Tuple
   * C) List
   * D) Dictionary
   * **Answer: C) List**
3. **What is the result of 2 + 3 \* 4 in Python?**
   * A) 20
   * B) 14
   * C) 12
   * D) 10
   * **Answer: B) 14**
4. **Which of the following is used to define a function in Python?**
   * A) function
   * B) def
   * C) fun
   * D) define
   * **Answer: B) def**
5. **How do you declare a list in Python?**
   * A) list = (1, 2, 3)
   * B) list = [1, 2, 3]
   * C) list = {1, 2, 3}
   * D) list = 1, 2, 3
   * **Answer: B) list = [1, 2, 3]**
6. **Which Python function is used to get the length of a string?**
   * A) length()
   * B) len()
   * C) size()
   * D) lengthof()
   * **Answer: B) len()**
7. **What does the range() function return?**
   * A) A list of numbers
   * B) A string of numbers
   * C) A tuple of numbers
   * D) A generator object
   * **Answer: D) A generator object**
8. **Which symbol is used for comments in Python?**
   * A) //
   * B) #
   * C) /\* \*/
   * D) <!-- -->
   * **Answer: B) #**
9. **What is the output of print('Hello' == 'hello')?**
   * A) True
   * B) False
   * C) Error
   * D) None
   * **Answer: B) False**
10. **Which operator is used for equality comparison in Python?**
    * A) =
    * B) ==
    * C) ===
    * D) !=
    * **Answer: B) ==**
11. **Which data structure is ordered, changeable, and allows duplicates?**
    * A) Set
    * B) List
    * C) Tuple
    * D) Dictionary
    * **Answer: B) List**
12. **Which of the following is used to handle exceptions in Python?**
    * A) try...catch
    * B) try...except
    * C) do...catch
    * D) catch...finally
    * **Answer: B) try...except**
13. **What will be the output of print(4 / 2)?**
    * A) 2
    * B) 2.0
    * C) Error
    * D) 2.00
    * **Answer: B) 2.0**
14. **Which of these is NOT a valid variable name in Python?**
    * A) var\_1
    * B) 1var
    * C) \_var
    * D) var1
    * **Answer: B) 1var**
15. **Which of the following is used to start a loop in Python?**
    * A) loop
    * B) while
    * C) iterate
    * D) for
    * **Answer: D) for**
16. **Which of the following will return the value of the largest number in a list?**
    * A) max()
    * B) largest()
    * C) big()
    * D) max\_value()
    * **Answer: A) max()**
17. **Which method removes an item from a list?**
    * A) del()
    * B) remove()
    * C) pop()
    * D) All of the above
    * **Answer: D) All of the above**
18. **What is the result of 10 % 3?**
    * A) 1
    * B) 3
    * C) 0
    * D) 10
    * **Answer: A) 1**
19. **How do you define a class in Python?**
    * A) class ClassName:
    * B) def ClassName:
    * C) class: ClassName
    * D) def class ClassName:
    * **Answer: A) class ClassName:**
20. **Which function converts a string to uppercase in Python?**
    * A) toUpper()
    * B) upper()
    * C) uppercase()
    * D) upcase()
    * **Answer: B) upper()**
21. **How can you remove all elements from a list?**
    * A) list.clear()
    * B) list.remove()
    * C) list.reset()
    * D) list.delete()
    * **Answer: A) list.clear()**
22. **What does the zip() function do?**
    * A) Merges two or more lists element-wise
    * B) Zips the string characters
    * C) Sorts the list
    * D) Compresses data
    * **Answer: A) Merges two or more lists element-wise**
23. **Which function checks whether a string contains a substring?**
    * A) find()
    * B) check()
    * C) contains()
    * D) in
    * **Answer: D) in**
24. **Which operator is used for logical AND in Python?**
    * A) and
    * B) &&
    * C) &
    * D) xor
    * **Answer: A) and**
25. **What is the correct way to import a module in Python?**
    * A) import module\_name
    * B) require module\_name
    * C) include module\_name
    * D) using module\_name
    * **Answer: A) import module\_name**

**Medium Python MCQs:**

1. **What will be the output of the following code? print("hello"[::-1])**
   * A) hello
   * B) olleh
   * C) Error
   * D) None
   * **Answer: B) olleh**
2. **What is the correct way to create a function that returns a value in Python?**
   * A) def myfunc {return value}
   * B) function myfunc() {return value}
   * C) def myfunc(): return value
   * D) function myfunc() return value
   * **Answer: C) def myfunc(): return value**
3. **Which of the following is used to get the type of an object in Python?**
   * A) get\_type()
   * B) type()
   * C) object\_type()
   * D) obj\_type()
   * **Answer: B) type()**
4. **What is the purpose of the global keyword in Python?**
   * A) To access global variables inside a function
   * B) To declare global functions
   * C) To make variables inside functions global
   * D) Both A and C
   * **Answer: D) Both A and C**
5. **What is the correct syntax for creating an empty dictionary in Python?**
   * A) dict = []
   * B) dict = {}
   * C) dict = ()
   * D) dict = empty()
   * **Answer: B) dict = {}`**
6. **Which of the following methods adds an item to the end of a list?**
   * A) append()
   * B) insert()
   * C) add()
   * D) extend()
   * **Answer: A) append()**
7. **How do you get the number of occurrences of an item in a list?**
   * A) list.count()
   * B) count(list)
   * C) len(list)
   * D) list.size()
   * **Answer: A) list.count()**
8. **What is the output of len("Hello World!")?**
   * A) 12
   * B) 11
   * C) 10
   * D) 13
   * **Answer: B) 11**
9. **How can you handle multiple exceptions in a single try block?**
   * A) except (TypeError, ValueError):
   * B) catch (TypeError, ValueError):
   * C) except TypeError or ValueError:
   * D) except: TypeError, ValueError:
   * **Answer: A) except (TypeError, ValueError):**
10. **Which of the following is true about Python sets?**
    * A) Sets are ordered collections
    * B) Sets can contain duplicate elements
    * C) Sets do not support indexing
    * D) Sets can store only one type of data
    * **Answer: C) Sets do not support indexing**
11. **How can you remove a specific element from a set in Python?**
    * A) remove()
    * B) del()
    * C) pop()
    * D) discard()
    * **Answer: A) remove()**
12. **Which method is used to add an item to the beginning of a list?**
    * A) insert()
    * B) append()
    * C) extend()
    * D) prepend()
    * **Answer: A) insert()**
13. **What will be the output of print(list("hello"))?**
    * A) ['h', 'e', 'l', 'l', 'o']
    * B) ['hello']
    * C) hello
    * D) h e l l o
    * **Answer: A) ['h', 'e', 'l', 'l', 'o']**
14. **Which of the following is used to check if a key exists in a dictionary?**
    * A) key in dict
    * B) dict.has\_key(key)
    * C) dict.contains(key)
    * D) dict.check(key)
    * **Answer: A) key in dict**
15. **What is the result of 3 \*\* 2?**
    * A) 6
    * B) 9
    * C) 5
    * D) 8
    * **Answer: B) 9**
16. **Which method is used to remove the first occurrence of an item from a list?**
    * A) pop()
    * B) remove()
    * C) delete()
    * D) discard()
    * **Answer: B) remove()**
17. **What does the sorted() function return?**
    * A) A sorted list
    * B) A sorted iterator
    * C) A sorted dictionary
    * D) None
    * **Answer: A) A sorted list**
18. **What will print(0.1 + 0.2 == 0.3) print?**
    * A) True
    * B) False
    * C) 0
    * D) 1
    * **Answer: B) False**
19. **Which Python function can be used to find the memory address of an object?**
    * A) id()
    * B) memory()
    * C) address()
    * D) locate()
    * **Answer: A) id()**
20. **What will be the output of the following code? print([x for x in range(5) if x % 2 == 0])**
    * A) [0, 2, 4]
    * B) [1, 3, 5]
    * C) [2, 4]
    * D) [0, 1, 2, 3, 4]
    * **Answer: A) [0, 2, 4]**
21. **How do you define a class variable in Python?**
    * A) Inside the \_\_init\_\_() method
    * B) Outside of the class
    * C) At the beginning of the class
    * D) It does not need a specific syntax
    * **Answer: C) At the beginning of the class**
22. **Which function can be used to check if a string is numeric?**
    * A) is\_number()
    * B) isnumeric()
    * C) check\_numeric()
    * D) isdigit()
    * **Answer: B) isnumeric()**
23. **What is the purpose of the break statement in a loop?**
    * A) To skip the current iteration
    * B) To stop the loop and continue with the next part of the program
    * C) To pause the loop for a given time
    * D) To stop the program execution
    * **Answer: B) To stop the loop and continue with the next part of the program**
24. **Which of the following is the correct way to define a static method inside a Python class?**
    * A) @staticmethod
    * B) @classmethod
    * C) @staticmethodmethod
    * D) @methodstatic
    * **Answer: A) @staticmethod**
25. **What will be the result of list(range(5, 15, 3))?**
    * A) [5, 8, 11, 14]
    * B) [5, 10, 15]
    * C) [0, 3, 6, 9]
    * D) [0, 1, 2, 3, 4]
    * **Answer: A) [5, 8, 11, 14]**

**Difficult Python MCQs:**

1. **What is the output of print('Hello'[:2] + 'World'[-2:])?**
   * A) HeWorld
   * B) HelloWorld
   * C) HelWor
   * D) HeWor
   * **Answer: D) HeWor**
2. **Which of the following statements is used to prevent a function from returning a value?**
   * A) return None
   * B) return()
   * C) return 0
   * D) None of the above
   * **Answer: A) return None**
3. **How do you merge two dictionaries in Python 3.9+?**
   * A) dict1 + dict2
   * B) dict1.update(dict2)
   * C) dict1.merge(dict2)
   * D) dict1 | dict2
   * **Answer: D) dict1 | dict2**
4. **Which of the following is a proper way to define an abstract method in Python?**
   * A) def abstract\_method():
   * B) def abstract():
   * C) def abstract\_method(self):
   * D) @abstractmethod def abstract\_method(self):
   * **Answer: D) @abstractmethod def abstract\_method(self):**
5. **Which of the following will raise an exception when used in Python?**
   * A) dict = {"key": 5}
   * B) dict = set()
   * C) dict = []
   * D) dict = 3
   * **Answer: B) dict = set()**
6. **Which method is used to join the elements of a tuple into a string?**
   * A) join()
   * B) tuple\_join()
   * C) concatenate()
   * D) combine()
   * **Answer: A) join()**
7. **How do you create a deep copy of a list in Python?**
   * A) copy.copy()
   * B) copy.deepcopy()
   * C) list.copy()
   * D) list.deepcopy()
   * **Answer: B) copy.deepcopy()**
8. **What will be the output of the following code? print([i for i in range(10) if i % 2 == 0])**
   * A) [0, 2, 4, 6, 8]
   * B) [1, 3, 5, 7, 9]
   * C) [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
   * D) []
   * **Answer: A) [0, 2, 4, 6, 8]**
9. **How do you define a class method in Python?**
   * A) @staticmethod
   * B) @classmethod
   * C) @methodclass
   * D) @classmethodmethod
   * **Answer: B) @classmethod**
10. **Which of the following is used to evaluate a string as Python code?**
    * A) eval()
    * B) exec()
    * C) compile()
    * D) All of the above
    * **Answer: D) All of the above**
11. **What is the difference between deepcopy() and copy() in Python?**
    * A) deepcopy() creates a shallow copy, while copy() creates a deep copy
    * B) deepcopy() creates a deep copy, while copy() creates a shallow copy
    * C) Both are the same
    * D) Neither creates a copy
    * **Answer: B) deepcopy() creates a deep copy, while copy() creates a shallow copy**
12. **What does the yield keyword do in a Python function?**
    * A) Stops the function and returns a value
    * B) Pauses the function and returns a value to the caller
    * C) Exits the function without returning anything
    * D) Executes the function again
    * **Answer: B) Pauses the function and returns a value to the caller**
13. **What is the output of print(2 == 2 == 2) in Python?**
    * A) True
    * B) False
    * C) 2
    * D) Error
    * **Answer: A) True**
14. **Which of the following function can be used to read a file line by line in Python?**
    * A) read()
    * B) readlines()
    * C) readline()
    * D) file.readlines()
    * **Answer: C) readline()**
15. **What is the output of the following code? print(True + 1)**
    * A) 2
    * B) True
    * C) 1
    * D) Error
    * **Answer: A) 2**

**Most difficult**

**1. What will be the output of the following code?**

python

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x = [1, 2, 3]

y = [4, 5, 6]

z = x

x = x + y

print(z)

* A) [1, 2, 3, 4, 5, 6]
* B) [1, 2, 3]
* C) [4, 5, 6]
* D) Error
* **Answer: B) [1, 2, 3]**

**2. How can you define a function that accepts an arbitrary number of keyword arguments?**

* A) def func(\*\*args):
* B) def func(\*args):
* C) def func(arg1, arg2, \*\*kwargs):
* D) def func(\*\*kwargs):
* **Answer: A) def func(\*\*args):**

**3. What does the \_\_del\_\_ method in a Python class do?**

* A) Initializes the object
* B) Deletes the object
* C) Finalizes the object before deletion
* D) Checks if the object exists
* **Answer: C) Finalizes the object before deletion**

**4. What is the output of the following code?**

python

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class Foo:

def \_\_init\_\_(self):

self.x = 10

def \_\_del\_\_(self):

self.x = 20

a = Foo()

del a

print(a.x)

* A) 10
* B) 20
* C) None
* D) Error
* **Answer: D) Error**

**5. What is the purpose of the yield keyword in Python?**

* A) Returns a value from a function
* B) Exits the function immediately
* C) Makes a function return a generator
* D) Pauses the function without returning
* **Answer: C) Makes a function return a generator**

**6. How can you implement a singleton pattern in Python?**

* A) Using \_\_new\_\_ method
* B) Using \_\_init\_\_ method
* C) Using class attributes
* D) Using a decorator
* **Answer: A) Using \_\_new\_\_ method**

**7. Which function can be used to merge two dictionaries in Python?**

* A) dict.merge()
* B) dict.update()
* C) dict.join()
* D) dict.append()
* **Answer: B) dict.update()**

**8. Which of the following methods is used to remove an element from a set in Python?**

* A) remove()
* B) del()
* C) discard()
* D) Both A and C
* **Answer: D) Both A and C**

**9. What will be the output of the following code?**

python

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x = [1, 2, 3]

y = [3, 2, 1]

print(x == y)

* A) True
* B) False
* C) None
* D) Error
* **Answer: B) False**

**10. What is the difference between deepcopy() and copy() in Python?**

* A) deepcopy() copies the reference; copy() creates a new object
* B) deepcopy() creates a new object with all references copied; copy() only copies the first level of objects
* C) They are the same
* D) deepcopy() works only for mutable objects
* **Answer: B) deepcopy() creates a new object with all references copied; copy() only copies the first level of objects**

**11. Which of the following is the correct way to define a class method?**

* A) def method(self):
* B) def method(cls):
* C) @classmethod
* D) @staticmethod
* **Answer: C) @classmethod**

**12. What is the output of the following code?**

python

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def outer():

a = 10

def inner():

nonlocal a

a = 20

inner()

return a

print(outer())

* A) 10
* B) 20
* C) None
* D) Error
* **Answer: B) 20**

**13. How do you ensure that a class method can be called without an instance of the class?**

* A) Use staticmethod
* B) Use classmethod
* C) Use staticmethod and classmethod
* D) Use @staticmethod with @classmethod
* **Answer: A) Use staticmethod**

**14. What does the zip() function do in Python?**

* A) Combines two lists element by element
* B) Unzips a list of tuples into individual lists
* C) Joins strings into one string
* D) Compresses a list into a smaller size
* **Answer: A) Combines two lists element by element**

**15. Which of the following can be used to create a decorator in Python?**

* A) def wrapper()
* B) @staticmethod
* C) @classmethod
* D) @decorator\_name
* **Answer: D) @decorator\_name**

**16. What will be the output of the following code?**

python

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x = 0

def foo():

global x

x = 5

foo()

print(x)

* A) 0
* B) 5
* C) None
* D) Error
* **Answer: B) 5**

**17. What is the output of the following code?**

python

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a = [1, 2, 3]

b = a

b.append(4)

print(a)

* A) [1, 2, 3, 4]
* B) [4, 1, 2, 3]
* C) [1, 2, 3]
* D) Error
* **Answer: A) [1, 2, 3, 4]**

**18. What is the result of the expression 2 \*\* 3 \*\* 2 in Python?**

* A) 512
* B) 64
* C) 128
* D) 256
* **Answer: A) 512**

**19. How would you handle exceptions in Python?**

* A) try...catch
* B) try...except
* C) catch...finally
* D) try...error
* **Answer: B) try...except**

**20. What is the purpose of \_\_init\_\_() method in Python?**

* A) It is called when an object is deleted
* B) It is called when an object is created
* C) It initializes class variables
* D) It initializes class methods
* **Answer: B) It is called when an object is created**

**21. How do you implement a method that is automatically called when an object is about to be destroyed in Python?**

* A) Using \_\_exit\_\_
* B) Using \_\_del\_\_
* C) Using \_\_close\_\_
* D) Using \_\_close\_\_
* **Answer: B) Using \_\_del\_\_**

**22. Which of the following can be used to stop the loop in Python?**

* A) continue
* B) break
* C) exit()
* D) pass
* **Answer: B) break**

**23. Which method is used to add a single element to the end of a list in Python?**

* A) append()
* B) insert()
* C) extend()
* D) add()
* **Answer: A) append()**

**24. What is the correct way to handle multiple exceptions in a try block in Python?**

* A) try: except: except:
* B) try: except(Exception1, Exception2):
* C) try: except Exception as e:
* D) try: except: except as e:
* **Answer: B) try: except(Exception1, Exception2):**

**25. What will be the output of the following code?**

python

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x = "hello"

y = "world"

print(f"{x} {y}")

* A) hello world
* B) "hello" "world"
* C) hello + world
* D) Error
* **Answer: A) hello world**